## **Claims**

5

10

15

1. Polyester resin comprising at least 85 Mol-% of polyethylene terephthalate and at least 0.01 Mol-%, but not more than 5.00 Mol-% of units of the formula (I)

wherein

$$A = \overline{Q}$$
,  $\overline{Q}$ ,  $\overline{Q}$ ,  $\overline{Q}$ ,  $\overline{Q}$  or  $\overline{C_n H_{2n-1}}$ 

wherein n is an integer from 3 to 10 and

wherein

M<sup>+</sup> is an alkali metal ion, earth alkali metal ion, phosphonium ion or ammonium ion and

wherein the polyester contains < 5.0 wt.-% of diethylene glycol and wherein the polyester contains Na<sub>2</sub>HPO<sub>4</sub> in an amount such that the phosphor content is 10 to 200 ppm (based on the weight of the polyester) and wherein the polyester is either free of or does not

contain more than 9 ppm of NaH<sub>2</sub>PO<sub>4</sub>, and

wherein the intrinsic viscosity is 0.6 to 1.0.

- 2. Polyester resin according to claim 1, wherein A = Tor or or .
- 20 3. Polyester resin according to claim 1, wherein A = ...
  - 4. Polyester resin according to claim 2 or 3, wherein the attachments to the phenyl ring are in 1-, 3- and 5-position and the attachment to the naphthyl ring are in 2-, 4- and 6-position.

- 5. Polyester resin according to one of claims 1 to 4, wherein M<sup>+</sup> is Li<sup>+</sup>, Na<sup>+</sup> or K<sup>+</sup>.
- 6. Polyester resin according to one of claims 1 to 5, wherein the Na<sub>2</sub>HPO<sub>4</sub> (disodium monohydrogenphosphate) is in the form of the dodeca-hydrate (•12 H<sub>2</sub>O).
- Polyester resin according to one of claims 1 to 6, further comprising <10 Mol-% of modifying agents.
- 10 8. Polyester resin according to one of claims 1 to 7, wherein the NSR is <10.
  - 9. Polyester resin according to one of claims 1 to 8, wherein the half time of crystallization is > 150 sec at 200°C.
- 15 10. Method of manufacturing a polyester resin according to claim 1, comprising the steps of
  - a) reacting terephthalic acid (TA) or C<sub>1</sub>-C<sub>4</sub>-dialkyl terephthalate; and ethylene glycol (EG); and at least 0.01, but not more than 5.00 Mol-% of a compound according to formula (II):

wherein R is hydrogen, a  $C_1$ - $C_4$ -alkyl or a  $C_1$ - $C_4$ -hydroxyalkyl and M and have the meaning given in claim 1 for formula (I) and

b) subjecting the reaction product of a) to a polycondensation reaction to form the polymer.

\* \* \* \* \*

20

5